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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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RONALD A. KRASNOW, ESQ.
SYMYX TECHNOLOGIES
3100 CENTRAL EXPRESSWAY
SANTA CLARA,, CA 95051

EXAMINER

GARCIA, MAURIE E

ART UNIT	PAPER NUMBER
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1627

DATE MAILED: 05/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/847,967

Applicant(s)

Goldwasser et al

Examiner

Maurie E. Garcia, Ph. D.

Art Unit

1627

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Feb 13, 2002
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8, 10, 11, 15-24, 26, 30-35, 42, 43, 45-49, 51-56, 58-60, 64-72, and 74-75 is/are pending in the application.
- 4a) Of the above, claim(s) 58, 59, and 79 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8, 10, 11, 15-24, 26, 30-35, 42, 43, 45-49, 51-56, 60, 64-72, 74-78, and 80-75 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The Response filed February 13, 2002 (Paper No. 19) is acknowledged. Claim 94 was amended and no claims were added or cancelled. Therefore, claims 8, 10, 11, 15-24, 26, 30-35, 42, 43, 45-49, 51-56, 58-60, 64-72 and 74-95 are pending.

2. Claims 58, 59 and 79 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to non-elected species. Note that applicants have elected the species where in the materials are applied by electron beam evaporation, the materials are to be screened for optical properties and the materials are to be *inorganic materials, specifically ceramics* (see supplemental election of species filed January 4, 2000 (Paper No. 15)).

3. Claims 8, 10, 11, 15-24, 26, 30-35, 42, 43, 45-49, 51-56, 60, 64-72, 74-78 and 80-95 are examined on the merits. Note that claims 74, 78 and 80 are being examined to the extent of the elected species (inorganic materials, specifically ceramics).

Withdrawn Rejections

4. Part of the rejection under 35 USC 112 (new matter) has been withdrawn in view of applicant's arguments and amendments. Also, the rejection under 35 USC 103 has been slightly rewritten in order to include claims 91-95 and to clarify the rejection. Since these changes were not entirely necessitated by applicant's amendment, this case remains in non-final status.

Maintained Rejections
Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

6. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b). Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 8, 10, 11, 15-24, 26, 30-35, 42, 43, 45-49, 51-56, 60, 64-72, 74-78, 80 and newly added 81-95 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-67 of U.S. Patent No. 5,985,356. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the instant application are directed to methods of making

and methods of making/evaluating arrays of inorganic compounds (elected species) by adding a first and second component of a material to different regions of a substrate.

8. Claims 8, 10, 11, 15-24, 26, 30-35, 42, 43, 45-49, 51-56, 60, 64-72, 74-78, 80 and newly added 81-95 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3-49 and 56-61 of U.S. Patent No. 6,004,617. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the instant application are directed to methods of making and methods of making/evaluating arrays of inorganic compounds (elected species) by adding a first and second component of a material to different regions of a substrate. It is also noted that the claims of the '617 patent recites making at least two arrays. As the arrays of the instant application are neither limited to being constructed on a single monolithic support, nor are the two arrays of the '617 limited to being prepared on separate supports this limitation does not distinguish the inventions. Moreover, preparing two or more copies of an array by method of the instant claims would read on the two arrays of the '617 patent. One of ordinary skill in the art would reasonably have been motivated to prepare more than one copy of the array in order to use them in a series of destructive tests or to sell the arrays.

Response to Arguments

9. Applicant states that they "will consider submitting a terminal disclaimer...once substantive agreement on the merits on the merits is reached" (Response, page 9, middle). Thus, the above rejections are maintained for reasons of record.

Maintained Rejections
Claim Rejections - 35 USC § 112

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claim 92 remains rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a new matter rejection.

The specification as originally filed does not provide support for the invention as now claimed. Claim 92 recites a specific temperature range, i.e. “annealing at a temperature of less than about 800°C”. Applicant points to various places for support for this new claim; however, the pages cited do not *specifically* set forth the recited temperature ranges. Thus, there does not appear to be support for the specific limitations now claimed. In accordance with MPEP § 714.02, applicants should ***specifically point out support*** for any amendments made to the disclosure.

Response to Arguments

12. Applicant's arguments filed February 13, 2002 have been fully considered but they are not found persuasive. The examiner's rationale is set forth below.

13. Applicant points to the instant specification page 50 (Response, page 3) in support for this limitation. The specification recites that “from 800°C to about 1000°C” is a preferred temperature range from the prior art and that the instant invention focuses on “the synthesis of compounds at lower temperatures”. The examiner does not deem this to be sufficient support for the specific limitation of “annealing at a temperature of less than about 800°C”. Note that a broad generic disclosure is **not** sufficient support for a specific entity within the class. Also note the following.

14. An objective standard for determining compliance with the written description requirement is, “does the description clearly allow persons of ordinary skill in the art to recognize that he or she invented what is claimed.” *In re Gosteli*, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989). Under *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991), to satisfy the written description requirement, an applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention, and that the invention, in that context, is whatever is now claimed. The test for sufficiency of support ... is whether the disclosure of the application relied upon “reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter.” *Ralston Purina Co. v. Far-Mar-Co., Inc.*, 772 F.2d 1570, 1575, 227 USPQ 177, 179 (Fed. Cir. 1985) quoting *In re Kaslow*, 707 F.2d 1366, 1375, 217 USPQ 1089, 1096 (Fed. Cir. 1983)). It is completely unclear that the description as filed supports the limitation of

“annealing at a temperature of less than about 800°C” for the reasons set forth above.

Thus, the rejection of claim 92 is maintained.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

17. Claims 8, 10, 11, 15-24, 26, 30-35, 42, 43, 45-49, 51-56, 60, 64-72, 74-78 and 80-95 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fister et al (on PTO-1449) in view of Cavicchi et al (US 5,365,756; of record).

Fister et al teach the preparation of superlattices, which are generally depicted in Figure 6. The reference discusses thin film reactions in general (beginning on page 161) and their advantages. Fister et al teach that the “ideal synthetic approach to a desired compound involves the rational choice of specific reaction conditions and steps designed to prepare the final compound as selectively as possible” and that the “key to applying this general philosophy to solid state synthesis is identifying and controlling a kinetic step in the reaction mechanism” (page 167, section 3.1). The reference goes on to teach that “superlattices presented several unique properties which could be exploited...” (page 169, bottom). The scope of the teachings of the reference is directed at preparing “initially layered composites in which the reactants interdiffuse to form a homogeneous, amorphous alloy” ...the “structure of the initial composite, the layering sequence and layer thicknesses is tailored to facilitate this pathway” (page 170, bottom). “The structure of the as-deposited films provides a well-defined synthetic starting point and parameters which can be correlated with subsequent reactivity” (page 171, top). The superlattices taught by Fister et al read on the claimed “inorganic materials” that are made by delivering “solid layers” onto a substrate. Fister et al teach that “the ability to deposit any sequence of layers and the independent control of layer thicknesses are crucial for both understanding and controlling interdiffusion reactions” and teach a system designed to provide such control (page 171 and Figures 7-9). The reference also describes various “complex layer sequences” such as ABC and ABCB (page 171,

middle), with specific examples such as Figures 16 and 17 (ten layer superlattices). These teachings read on the various layer structures set forth in independent claims 42, 68, 70, 72, 74, 84 and 88 (and dependant claims also). The reference also teaches “rational design of superlattice reactants” (beginning on page 209), with specific examples thereof. Lastly, Fister et al teach applying this approach to the preparation of new compounds (page 227, 2nd paragraph). With respect to the specific limitations regarding annealing temperatures (instant claims 92-93), Fister et al teaches conditions that fall within applicant’s claimed range. See page 206 of the reference (2nd paragraph).

The Fister reference lacks the teaching of preparing an array of such superlattice compounds and certain specific limitations of the dependent claims regarding preparation and screening of such.

However, it was well known in the art at the time of filing to prepare arrays of inorganic materials and to screen them to look for materials with desired properties. For example, Cavicchi et al “provide a method of characterizing materials”, “investigating microsamples of materials” and “preparing a plurality of microsamples on a single substrate which have different characteristics” (see column 1, lines 58-68, for example). The methods of the reference are “particularly useful for materials development” (column, 13, line 27). The reference teaches (1) preparing a substrate for receiving materials through temperature and bias control, (2) deposition of materials to form a micro array, (3) processing (i.e., heating, cooling, etc.) the array in any atmosphere, (4) formation

of alloys (i.e., mixing of components) on the substrate, and (5) measuring the resulting properties of the materials formed (see abstract, for example). The reference also teaches forming up to 1000 micro-samples in the arrays (column 3, lines 37-50) and that each sample is prepared on a separate microfabricated hot plate such that the components do not substantially interdiffuse between the isolated microstructure regions (see Figure 5, for example). The reference teaches the microsubstrates can be used to prepare and test properties of materials (e.g., electrical properties as discussed in the abstract and preparing and evaluating superconductors, as discussed in column 13 lines 33-60). See also patented claims 15-16 in reference to "characterizing material properties". The reference teaches parallel delivery of reactants to the micro-hotplates and also post-fabrication treatments, see column 9, line 60 through column 10, line 46. The reference also teaches that masks can be used to direct the application of materials sequentially to desired regions (reading on physical masking). See the following from Cavicchi et al:

"Another deposition technique which can be used according to the present invention involves lithographically to define selected microsubstrates for deposition. For example, it is possible to coat an entire chip with a photoresist and thereafter expose selected micro-hotplates using a mask and appropriate illumination. Development proceeds by dissolving the exposed photoresist in a solvent in a known manner." (See column 10)
and

Claim 6. A method of preparing a plurality of micro-samples of materials for investigation according to claim 5, wherein said lithography process involves applying a resist material to said substrate, irradiating portions of said resist material utilizing a mask and removing said irradiated portions of said resist material the materials.

The reference teaches of gas phase reactants to alter the stoichiometry the materials (see abstract) and also teaches that the materials may be applied by electron beam evaporation (see column 10, lines 55-58). The reference teaches

that superconductors and optical semiconductor materials such as GaAs can be grown on the microsubstrates and also teaches analysis using different techniques including optical techniques (column 11 lines 46-62, see also patented claim 15-16). Moreover, the reference teaches that $\text{YBa}_2\text{Cu}_3\text{O}_7$ superconductors, Si, GaAs and SnO_2 may be applied which read on ceramic materials and that:

“Pixels are also addressed to control properties during post-deposition processing steps such as heating in vacuum or various gases to alter stoichiometry of a single material, or to alloy multiple composition materials.”

The reference teaches various process temperatures falling within applicant's claimed ranges (i.e. instant claims 92-94). See Figure 6 and column 8, lines 59-63. The reference also teaches various film thicknesses falling within those in instant claim 95, see column 10, lines 18-31. Cavicchi et al teach that “the ability to simultaneously process hundreds of microsamples with a range of temperature parameters would greatly enhance the optimization of the processes” and that the “ability to examine many micro samples in delicate micro-probing instruments ...would speed the development process” (column 14, lines 9-16).

Therefore, it would have been *prima facie* obvious to one of ordinary skill in the art to make the superlattices taught by Fister et al using the methods of Cavicchi et al directed to “characterizing materials”, “investigating microsamples of materials” and “preparing a plurality of microsamples on a single substrate which have different characteristics”. One of ordinary skill would have been motivated to do so based on the “unique properties” of superlattices taught by Fister et al, the use of such to the prepare new compounds and also the need to have a diversity of materials to screen for desired properties and the advantages of

the methods of Cavicchi et al (“the ability to simultaneously process hundreds of microsamples with a range of temperature parameters would greatly enhance the optimization of the processes” and that the “ability to examine many micro samples in delicate micro-probing instruments ... would speed the development process” (column 14, lines 9-16)).

Response to Arguments

18. Applicant's arguments filed February 13, 2002 have been fully considered but they are not found persuasive. It is noted that the above rejection has been slightly rewritten. However, most of applicant's arguments still apply and will be addressed. The examiner's rationale is set forth below.

19. Applicant argues that “neither Fister *et al.* or Cavicchi *et al.* disclose or suggest preparing arrays of diverse materials using a protocol that includes varying the composition, concentration, stoichiometry or thickness of the *delivered* (first or second) *component*” (Response, page 5). The examiner respectfully disagrees. As stated in the rejection (emphasis added), Fister et al teach that the “**ideal synthetic approach to a desired compound involves the rational choice of specific reaction conditions and steps designed to prepare the final compound as selectively as possible**” and that the “key to applying this general philosophy to solid state synthesis is identifying and controlling a kinetic step in the reaction mechanism” (page 167, section 3.1). The reference goes on to teach that “superlattices presented several unique properties which

could be exploited...” (page 169, bottom). The scope of the teachings of the reference is directed at preparing “initially layered composites in which the reactants interdiffuse to form a homogeneous, amorphous alloy” ...the **“structure of the initial composite, the layering sequence and layer thicknesses is tailored to facilitate this pathway”** (page 170, bottom). “The structure of the as-deposited films provides a well-defined synthetic starting point and parameters which can be correlated with subsequent reactivity” (page 171, top).

20. Also as stated in the rejection (emphasis added), the superlattices taught by Fister et al read on the claimed “inorganic materials” that are made by delivering “solid layers” onto a substrate. Fister et al teach that **“the ability to deposit any sequence of layers and the independent control of layer thicknesses are crucial for both understanding and controlling interdiffusion reactions”** and teach a system designed to provide such control (page 171 and Figures 7-9). The reference also describes various “complex layer sequences” such as ABC and ABCB (page 171, middle), with specific examples such as Figures 16 and 17 (ten layer superlattices). These teachings read on the various layer structures set forth in independent claims 42, 68, 70, 72, 74, 84 and 88 (and dependant claims also). The reference also teaches **“rational design of superlattice reactants”** (beginning on page 209), with specific examples thereof.

21. The examiner deems the above cited teachings render obvious the claimed “protocol that includes varying the composition, concentration, stoichiometry or

thickness of the *delivered* (first or second) *component*” (arguments on pages 5-6 of Response). Moreover, it is noted that no specific protocol is instantly claimed, i.e. specific reactants/product and conditions specific for that reactant/product. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

22. Thus, the examiner deems that Fister et al does indeed teach variation of composition, concentration, stoichiometry or thickness, see the above cited teachings, for example, “the ability to deposit any sequence of layers and the independent control of layer thicknesses are crucial for both understanding and controlling interdiffusion reactions”. The Fister reference also specifically teaches making various “complex layer sequences” such as ABC and ABCB (page 171, middle), with specific examples such as Figures 16 and 17 (ten layer superlattices).

23. With respect to the Cavicchi reference, applicant argues that the reference is only applicable to process conditions (“temperature and/or voltage bias”) and that this “would not have led a person of ordinary skill to Applicants’ invention” (Response, page 6). However, the Cavicchi reference is used to demonstrate that it was well known in the art at the time of filing to prepare arrays of inorganic materials and to screen them to look for materials with desired properties. As stated in the rejection, Cavicchi et al “provide a method of characterizing materials”, “investigating microsamples of materials” and

“preparing a plurality of microsamples on a single substrate which have different characteristics” (see column 1, lines 58-68, for example).

24. Also note that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

25. Applicant argues on pages 6-8 of the Response that the combination of the references “does not lead to the substantially different methods claimed by Applicants” (page 8). Again, Applicant has not claimed any specific protocol, i.e. specific reactants/product and conditions specific for that reactant/product. The examiner deems that the instant claims are rendered obvious by the various teachings of Fister with respect to creation of superlattices and Cavicchi with respect to preparing arrays of inorganic materials and screening them to look for materials with desired properties.

26. Moreover, note that optimization of process steps, especially with respect to ordering, is within the routine skill of the art. *In re Burhans*, 154 F.2d 690, 69 USPQ330 (CCPA 1946) (selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results). Also, “[w]here the general conditions of a

claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA1955).

27. Applicants concede that “certain claimed embodiments could be practiced using a device allowing for process variations – such as that disclosed in Cavicchi *et al.*” (Response, page 8). Applicant goes on to state that “obviousness cannot be established merely based on the fact that the device...could have been used...unless the prior art also suggests the desirability of the combination” (Response, page 8).

28. The examiner believes that this motivation (desirability) is present. As stated in the rejection, one of ordinary skill would have been motivated to do so based on the “unique properties” of superlattices taught by Fister *et al*, the use of such to the prepare new compounds and also the need to have a diversity of materials to screen for desired properties and the advantages of the methods of Cavicchi *et al* (“the ability to simultaneously process hundreds of microsamples with a range of temperature parameters would greatly enhance the optimization of the processes” and that the “ability to examine many micro samples in delicate micro-probing instruments ...would speed the development process” (column 14, lines 9-16)).

29. The strongest rationale for combining references is a recognition, expressly or impliedly in the prior art or drawn from a convincing line of reasoning based on

established scientific principles or legal precedent, that some advantage or expected beneficial result would have been produced by their combination. *In re Sernaker*, 702 F.2d 989, 994-95, 217 USPQ 1, 5-6 (Fed. Cir. 1983). The examiner believes that the above stated advantages are strong motivation.

30. Also see MPEP 2144:

The reason or motivation to modify the reference may often suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by applicant. *In re Linter*, 458 F.2d 1013, 173 USPQ 560 (CCPA 1972) (discussed below); *In re Dillon*, 919 F.2d 688, 16 USPQ2d 1897 (Fed. Cir. 1990), cert. denied, 500 U.S. 904 (1991) (discussed below). Although *Ex parte Levengood*, 28 USPQ2d 1300, 1302 (Bd. Pat. App. & Inter. 1993) states that obviousness cannot be established by combining references "without also providing evidence of the motivating force which would impel one skilled in the art to do what the patent applicant has done" (emphasis added), reading the quotation in context it is clear that while there must be motivation to make the claimed invention, there is no requirement that the prior art provide the same reason as the applicant to make the claimed invention.

31. Lastly, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning (Response, page 8), it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).


Status of Claims/Conclusion

32. No claims are allowed.

33. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maurie E. Garcia, Ph.D. whose telephone number is (703) 308-0065. The examiner can normally be reached on Monday-Thursday from 9:30 to 7:00 and alternate Fridays.

34. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jyothsna Venkat, can be reached on (703) 308-2439. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4242. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

Maurie E. Garcia, Ph.D.
May 6, 2002



MAURIE E. GARCIA, PH.D.
PATENT EXAMINER